



SimLEARNSM
Excellence in Veterans' Healthcare

Newsletter

Unique women's health program continues to change the face of VA care

Courtesy of VHA Women's Health Services

ORLANDO, Fla. – The Veterans Health Administration trained over 300 health care providers in its women's health mini-residency program in Orlando this summer – marking a total of 1,850 providers trained in best practices for women Veterans health care over the past five years. The innovative program, which incorporates pelvic and breast exam instruction using simulation training equipment and live, trained models, is the result of a collaboration between VHA's Women's Health Services, the VHA Employee Education System (EES) and the VHA SimLEARN program.

Developed by women Veterans health clinical experts, the mini-residency program for primary care providers continues to further VHA's progress in reaching the goal of implementing comprehensive primary care for women at all VHA sites of care. Topics covered in the three-day course included pelvic pain, breast masses, contraception and cervical cancer screening, as well as post-deployment issues and military sexual trauma. Participants rotated through a simulation training lab that was set up at the main conference site, as well as training in the simulation center, at the University of Central Florida College of Medicine.

There are currently more than 2.2 million women Veterans. The number of women Veterans using VA health care has more than doubled in the last decade, from nearly 160,000 (fiscal year 2000) to more than 360,000 (fiscal year 2012). It is expected that this number will double again in the next 10 years. Due to this rapid growth, ensuring that VA has the best training for its providers is a top priority.

"We launched these

Samina Iqbal, M.D., director of women's health at the Palo Alto VA Medical Center and a senior consultant for women's health, practices with one of the simulators during a mini-residency in Orlando, Fla. (VA courtesy photo)



mini-residencies in 2008 as a way to proactively prepare our providers for the record influx of women Veterans," said Patricia Hayes, chief consultant, Women's Health Services. "I am thrilled that we have trained so many providers and see this as a major step towards having every woman Veteran who comes to VA seen by a provider who is both interested and proficient in women's health care."

A similar mini-residency program for primary care nurses was delivered in VHA's virtual university in May 2013, and a mini-residency program for emergency medicine nurses and providers is planned for early 2014.

"Looking forward, we hope to expand our training programs to include more interprofessional and team training

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Sharing simulation in health care with future health care workers

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TAMPA, Fla. – Twenty students from the Sunlake High School Hospital Occupations Student Association (HOSA) in Pasco County, Fla., recently had the experience of learning about simulation and how it is used in the hospital setting: to teach staff, measure competencies and find exceptional solutions to new experiences. The students and HOSA club members were guests at the simulation center here, to see and learn more about how high-fidelity simulation works.

HOSA is a national student organization endorsed by the U.S. Department of Education and the Health Science Education Division of the Association for Career and Technical Education. Its mission is to promote career opportunities in the health care field and enhance delivery of quality health care to all people.

Hospital staff and nursing students provided the students with experience using high-fidelity simulators, by teaching them how to assess peripheral pulses and listen to different lung and heart sounds on the simulator. The students were led in a mock code experience with the high-fidelity simulator, and they were able to see how health care is using simulation to enhance our delivery of patient care to Veterans.

HOSA Instructor Sue Grego commented on how this field trip to the simulation center was a crucial step for promoting



VA Learning Opportunities Residency student Aaron Cleet (left) shows Hospital Occupations Student Association students Nicole Harder and Maya Maharana how to listen to heart and lung sounds on the high-fidelity simulator. (VA photo by Janet Sprehe)

high school students to go into the health care industry, especially since there is an acute shortage of qualified workers.

“We all enjoyed seeing and working with the high-fidelity simulators,” said Grego. “This is a great way to promote students’ interest in working in our health care field. This was a great collaboration between the hospital and our community. These types of experiences help encourage students to become future nurses, physicians and other health occupations. We greatly loved this experience.” ❖

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so that various professions can learn from each other and learn as they practice: as part of a team,” said Dr. Laure Veet, director, women’s health education, VHA Women’s Health Services. “We also look forward to refining plans to help clinical staff stay up-to-date on the latest advancements in women Veterans health care after the initial training.”

For Dr. Robin Faumuina, a participant from VA American Samoa, the mini-residency program gave her an unmatched opportunity to learn as much as possible in order to improve her expertise in working with women Veterans.

“We have to fly our patients to Honolulu to seek care from specialists,” Dr. Faumuina said. “So, as the women’s health provider at the American Samoa VA clinic, I [grasped] as much knowledge and experience that I [could], in order to better serve our women Veterans.”

For Dr. Jill Clay, a primary care physician from a community outpatient clinic in Newark, Ohio, the program’s content and structure left a mark.

“I felt I left with more confidence and knowledge than prior to the program,” she said. “I look forward to attending in the future.” ❖

SimLEARN staff demonstrate simulation skills to students

*By Gerald Sonnenberg
EES Marketing and Communication*

ORLANDO, Fla. – SimLEARN staff provided medical simulation demonstrations to more than 400 high school and middle school students from throughout Florida Sept. 30 at the Lou Frey Institute of Politics and Government on the University of Central Florida. The “Simulation: Evolutionary Past, Boundless Future” event demonstrated careers in science, technology, engineering and mathematics (STEM) in an effort to show students that STEM careers branch out far beyond what they might imagine.

SimLEARN was one of about a dozen organizations that demonstrated a variety of modeling and simulation techniques and helped provide a hands-on, interactive simulation symposium. These demonstrations allowed students to “practice” procedures.

Dr. Haru Okuda, SimLEARN national medical director, was part of the team that participated in the symposium, and he enjoyed the opportunity to share the hands-on opportunity with young, eager students.

“It was very exciting to have the opportunity to interact with this group of interested high school and middle school students,” he said. “They all got the ‘hands-on’ experience for using various, state-of-the-art, modeling and



Dr. Malcolm Klein, chief of anesthesiology at the James A. Haley VA Hospital in Tampa, Fla., helps a local student intubate a “patient” at the symposium. (VA photo by Dolly Glass)

simulation-based clinical training tools used within Veterans Health Administration for improving workforce skills in providing health care to our Veteran patients. They eagerly participated in drills for difficult airway intubations, central line placements, as well as resuscitation and high-fidelity mannequin operations.”

Harry Robinson, SimLEARN national program manager, said, “the Lou Frey Institute, University of Central Florida, and supporting partners provided a well-organized and executed event that captivated over 430 students from over 13 area high schools. The SimLEARN faculty and staff were grateful for the opportunity to join the team in showcasing several simulation-based training modalities that are fundamentally changing and improving clinical health care training.”

“The medical domain is quickly moving over the precipice to increase training efficiency through simulation, while maintaining the high standards historically achieved through on-the-job training,” he added. Our student attendees certainly seemed enthused and enjoyed the chance to learn more about their future prospects in STEM.” ❖

Dr. Haru Okuda, SimLEARN national medical director, uses an ultrasound device on a student at the symposium. (VA photo by Dolly Glass)



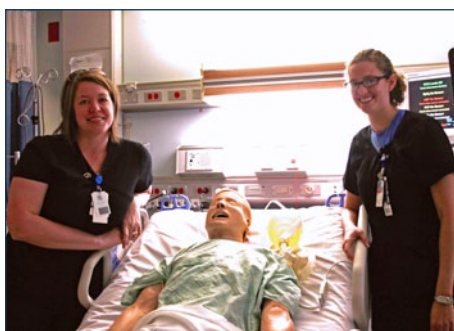
Critical care simulation education room piloted at Des Moines VAMC

*By Gloria Castellano,
Nurse Educator and Simulation Coordinator
VA Central Iowa Health Care System*

DES MOINES, Iowa – The intensive care unit (ICU) here recently piloted a Critical Care Simulation Education Room, in which specific critical skills were reviewed. The staff had the opportunity to interact and practice skills to familiarize themselves with training and to create a level of comfort for various topics they deemed were necessary for their clinical setting.

This is just another way simulation has empowered the staff and facility with education opportunities, creating a safe

(Left to right) ICU staff Heather Frank and Jill Jefferson stand ready in the critical care simulation education room. (VA photo by James Kastner)



environment for learning objectives and enhancing the way they deliver excellence in patient care. Activities included practicing skills such as intraosseous insertion, and acting out advanced cardiovascular life support mega code scenarios.

As training continues, staff members are looking forward to the advances in education and simulation heading their way in Central Iowa. ❖



Pictured (left to right) ICU staff Desirae Snyder, Heather Frank, Elizabeth Filbert, Jill Jefferson and Andrea Hill conduct a mega code scenario in the critical care simulation education room. (VA photo by James Kastner)

Air Guard medics complete skill training at Minneapolis VA

*By David J. Adriansen, Ed.D, NREMT
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MINNEAPOLIS – On Aug. 16, sixteen members of the 133rd Medical Group of the Minnesota Air National Guard completed Readiness Skills Verification Training using simulation at the Minneapolis VA Simulation Center. All Air Force aeromedical technicians are required to complete skills testing every 24 months. Readiness skills include patient assessment, administering medications, IV, nasogastric and Foley insertion, chest tube care, measuring and recording intake and output, suturing, external fixator and pin care and applying and bi-valving casts.

VHA simulation staff advised Guard members during this joint training initiative, which allowed Air Force medics to



Tech. Sgt. Luke Tajima (center) instructs Senior Airman Derek Rangel on fixator pin care while Master Sgt. Tanya Vossberg observes. (VA photo by April Eilers)

complete all skills via simulation in one setting, including using a newly created fixator trainer. ❖

First cardiopulmonary perfusion simulator arrives at San Francisco VA Medical Center

By Rich Fidler, CRNA, NP, MBA, Director, Healthcare Simulation Programs and Co-Director

Fellowship in Advanced Clinical Simulation

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Greater Los Angeles-West VA Medical Center

Maj. Curt Wozniak, MD, Attending Cardiothoracic Surgeon

San Francisco VA/Travis AFB-David Grant Medical Center

SAN FRANCISCO – Clinical simulation has become part of the culture at the San Francisco VA Medical Center for staff training, process evaluation and improvement, as well as probing the medical center for safety issues. As part of its ongoing commitment to enrich the in-situ simulation scenarios to benefit all participants in team training, a new cardiopulmonary perfusion simulator was just installed.

For the perfusionist – a specialized health care professional who uses the heart-lung machine during cardiac or other surgeries – the perfusion simulator is able to connect directly to clinical monitoring equipment. It also directly interfaces with the clinical cardio-pulmonary bypass machines to provide realistic screen displays and actual physiologic waveform data for the perfusionist, anesthesia provider and the surgical team.

The perfusion simulator system consists of a control in a small desktop computer; a perfusionist monitoring control touch-screen panel that fits on the perfusion machine; and the briefcase-sized perfusion connection module that allows all of the physiologic monitors to connect. Physiologic outputs include multi-lead electrography with the ability to change rhythms; invasive arterial and central venous pressure waveforms, cardioplegia is able to be infused, and the simulator connects to the cardiopulmonary bypass pump with fluid to simulate blood.

The perfusion simulator adds a layer of

realism that was never before possible.

“This simulator seems so real. The simulator was able to reproduce changes consistent with emboli, bleeding with major hypovolemia, and the venous air lock appeared exactly as it would for real,” said Michelle Chambliss, a certified cardiopulmonary perfusionist.

For many highly technical simulations, such as cardiac surgery, there is often a focus on one learner or group of learners’ technical skills, while team training can be incorporated. Until now, a significant amount of simulated technical experiences for the surgeon, scrub and perfusionist was sacrificed to focus more on teamwork and anesthesia care. With the addition of several components, simulation scenarios were enriched so that all professionals have the opportunity to have technical challenges as part of the in-situ clinical simulation scenarios. In addition to the perfusion simulator, the cardiac surgery simulation team has incorporated an open-chest model of re sternotomy.

The addition of the perfusion simulator represents one of the technological components of an advanced cardiac surgical clinical simulation program, aimed at improving team dynamics and communication, early identification of status changes and team preparedness for critical emergencies. ❖



The components of a perfusion simulator include the computer control base, the hydraulic simulator unit with electrocardiogram and a touch pad for the perfusion pump operator. (VA courtesy photo)

Implementing a new stroke code process; Using simulation to achieve positive change

By Laura Sescilla, MSN, RN

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*and Mary Holtschneider, RN-BC, BSN, MPA,
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Simulation Program staff

Durham VA Medical Center

DURHAM, N.C. – The Durham VA Medical Center (DVAMC) simulation program has a reputation for providing high-quality, in situ simulations that focus on process improvement and education. In situ simulations, or simulations done in the actual work area rather than a separate simulation center, help identify latent threats so they can be isolated and fixed.

The DVAMC simulation program has had great success with finding, reporting and fixing latent threats throughout the hospital as a result of its code response team (CRT) training program. These unannounced simulations are held all over the hospital and involve first responders and actual code team members responding to a simulated cardiac arrest. All CRTs are considered real and not “mock,” as all process issues and educational issues are reported and addressed via the hospital critical

care committee.

The success of this CRT program led stakeholders to wholeheartedly employ simulation to implement a new stroke code process in 2011. A workgroup of subject matter experts developed a customized stroke code draft process based on the VHA directive and current evidence-based best practices on stroke management. The first draft of this process included calling a full code if a patient is suspected of having a stroke.

In November 2011, the first simulated stroke code took place in interventional radiology unit (IRU). The IRU staff recognized that the simulated patient was having a stroke, yet there was no mechanism at that time to activate anything other than a code. When the full code team responded, it was obvious that the new stroke code response process needed only several targeted team members to respond. The nursing and medical staff enthusiastically volunteered to be the stroke code team responders and became stroke champions for the hospital. A stroke code workgroup formed to develop the process. This group worked closely with all stakeholders to ensure that processes were tested, documented and reported to the critical care committee.

The simulation team held several more stroke code simulations in 2012 to further refine the new process and test for systems issues. These simulations directly led to several process improvement initiatives that have greatly streamlined the process since. Prior to the stroke code process initiation, two different numbers were called for code blue team and rapid response team, which caused confusion for all staff, including the operators. With the addition of the new stroke code response team, stakeholders decided that one number would serve as the overall emergency number; thereby eliminating confusion.

In addition, simulations identified that two key responders for stroke codes were inconsistently being alerted. The first stakeholder, the computed tomography (CT) technician, did not have a dedicated pager for emergencies. The second stakeholder, the neurology resident on call, was not always at the hospital as he/she could physically be at the academic affiliate, Duke Hospital. As a result of the spring 2012

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Cardiac Intensive Care Unit (CICU) staff Marilia Pereira, RN, and Maxine Rehder, RN, display the stroke code kit that the CICU nurse brings to all stroke codes. It includes a specialized stroke code lab pack and NIH stroke scale cognitive aid. (VA photo by Mary Holtschneider)

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simulations, the CT technician was given a dedicated emergency response pager. The telephone operators collaborated with the neurology residents on how to best activate them, which included adding a call-back number to the stroke code information. Though these are seemingly simple solutions, they would not have been identified and fixed if simulations had not been done.

These simulations also revealed that certain tools and supplies are needed for a stroke that differ from other rapid response situations and codes. Based on the results of the stroke code simulations, the team developed a stroke bag that contains a stroke-specific lab pack, the National Institutes of Health (NIH) stroke scale and other important items. The team also developed a bedside cognitive aid to assist staff in completing necessary processes when a possible stroke is identified. This aid is readily available on all units, and has been reworked and updated several times in response to continued simulations. Another concern was identified while physicians were entering orders individually. This order entry took significant time and, sometimes important items were overlooked. In consultation with informatics, an order set was developed and placed in the computerized record system called “Immediate Stroke Orders.”

The DVAMC simulation program is active with the simulation community nationally, regionally and locally. The team recently hosted the North Carolina Nurses Association Simulation Council and presented a continuing education activity for the 30 attendees entitled, “In Situ Stroke Code Simulation: Planning, Preparation and Delivery.” The participants were able to observe an actual stroke code simulation on one of the medical/surgical floors and participate in the debriefing with the staff.

During National Stroke Awareness Month in May 2013, the simulation team visited the emergency department (ED) and explained the hospital stroke code process. The ED process, at the time, included making multiple calls to pharmacy, radiology, physicians, patient



Stroke code in situ simulation with a standardized patient (Vance Watkins) as the stroke patient. (Left to right) Floor Nurse Lucy Cauthen, RN, Charge Nurse Sobha Cherian, RN, and Neurology Resident Matt Abramson, MD, assess the patient. (VA photo by Mary Holtschneider)

transport, etc. When they saw the efficiency of calling one number to activate the entire stroke team, they saw the need for adopting this change in such a fast-paced environment. This past summer, the simulation team performed a full-scale simulation that actually took a standardized patient the entire way through the process from entry to the facility through administration of tissue plasminogen activator or tPA. The simulation team collaborated with the stroke program coordinator, ICU and ED nurse educators, ED management, patient safety officer, clinical nurse specialist and pharmacy supervisor to utilize the Healthcare Failure Mode and Effects Analysis with its related severity and probability scores as a process improvement model.

Each step of the process was documented and new process issues were identified and are being addressed through the critical care committee. Future plans for stroke code simulations include more full systems tests and off-shift exercises to identify resource needs and potential communication breakdowns.

For more information, contact **Laura Secilla**, **Mary Holtschneider** or **Reginaldo Horwitz**. ❖

Simulation and patient safety meeting held in Orlando

By SimLEARN Staff
VHA National Simulation Center

ORLANDO, Fla. – The Florida Nurses Association (FNA) hosted a regional meeting here the evening of Nov. 21, and invited Lygia Arcaro, Ph.D., RN, SimLEARN national director of nursing programs to speak. Nurses, as patient advocates, are concerned about the safety and well-being of their patients. The 15 nurses who attended came to the meeting to learn how health care simulation facilitates patient safety.

One attendee, Marti Hanuschik, said, “Sim training

begins the muscle memory process. You learn in a non-judgmental environment, gain experience and confidence to apply skills in real situations. My nursing career may have been totally different if sim training was available in my curriculum.”

Recent simulation applications and the supporting evidence for use in health care highlighted the evening.

“The facts and figures related to simulation showed the need to continue encouraging simulation use in training, not only in nursing schools but in all health care settings,” said Vicki Sumagpang, director of programs and membership engagement for FNA. “The members returned home with practical simulation knowledge.” ❖



VISN 23 conference

Dr. Haru Okuda, SimLEARN national medical director, gives a national perspective presentation during Veterans Integrated Service Network (VISN) 23's first simulation conference Sept. 23-24 at the Minneapolis VA Simulation Center.

In addition to 17 attendees, this was the first VA regional simulation conference which also involved the use of videoteleconferencing for attendees that

could not travel, as well as the VISN broadcast and taping of simulation equipment training.

VISN 23 has a simulation charter and steering committee, two-facility appointed simulation champions for each of eleven sites, and was able to train 6,800 staff using simulation in 2012. (VA photo by April Eilers)

SimLEARN Newsletter is a product of the Veterans Health Administration National Simulation Center. The program's operations and management is conducted by the VHA Employee Education System in close collaboration with the Office of Patient Care Services and the Office of Nursing Services. For more information, visit www.simlearn.va.gov or e-mail VASimLEARNGeneralInformation@va.gov.



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